

Title (en)

Supersonic distributor for the inlet stage of a turbomachine

Title (de)

Überschalleitschaufel in der Eingangsstufe einer Turbomaschine

Title (fr)

Distributeur supersonique d'étage d'entrée de turbomachine

Publication

**EP 0719906 B1 19990414 (FR)**

Application

**EP 95402940 A 19951226**

Priority

FR 9415693 A 19941227

Abstract (en)

[origin: EP0719906A1] The supersonic inlet stage for a turbomachine comprises an external casing (102), a hub (101) and an assembly of peripheral blades (103) located in a ring and fastened to the hub. Between the blades are supersonic speed fluid passages (104) where high pressure low flow rates are transformed into supersonic flow at low pressure. The regularly spaced radial blades have a half nozzle section with an upstream rectilinear part (134) and a hump (133) which defines a neck, having a variable section along a radius, for accelerating the flow to sonic. The blades have a downstream curved part (135) which is ended in a region of uniform flow by a trailing edge (131) which can be truncated perpendicularly to the rotational axis.

IPC 1-7

**F01D 9/02**

IPC 8 full level

**F01D 9/02** (2006.01); **F01D 9/04** (2006.01); **F02K 7/14** (2006.01)

CPC (source: EP US)

**F01D 9/041** (2013.01 - EP US); **F05D 2240/302** (2013.01 - EP US)

Cited by

CN107489462A

Designated contracting state (EPC)

CH DE GB IT LI SE

DOCDB simple family (publication)

**EP 0719906 A1 19960703**; **EP 0719906 B1 19990414**; CA 2165863 A1 19960628; DE 69509056 D1 19990520; DE 69509056 T2 19991021; FR 2728618 A1 19960628; FR 2728618 B1 19970314; JP 3779360 B2 20060524; JP H08232603 A 19960910; US 5676522 A 19971014

DOCDB simple family (application)

**EP 95402940 A 19951226**; CA 2165863 A 19951221; DE 69509056 T 19951226; FR 9415693 A 19941227; JP 34138895 A 19951227; US 57738895 A 19951222